
Abstract

Telemedicine and Remote Rehabilitation for Patients with Cardiac Disease Post COVID-19 Era

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Abstract

Background: The COVID-19 pandemic has accelerated the changes of daily practice in medical care worldwide. Telemedicine is one of the most stimulated fields among these changes, even in the cardiovascular disease care. In the past decade, remote monitoring has become an important tool that provides valuable clinical information via respiratory assist devices and implantable pacemakers from patients at home.

Objective: The objective of our study was to investigate whether these remote monitoring approaches could include a broader spectrum of patients with cardiac disease with the development of noninvasive monitoring devices.

Methods: Several pilot studies of telemedicine-based monitoring systems using commercially available digital devices were conducted in the infectious disease wards and other clinical settings during the COVID-19 pandemic. We evaluated the effectiveness of a remote heart monitoring system that provides real-time electrocardiogram and other vital signs monitoring in patients with cardiovascular disease. A newly developed remote cardiac rehabilitation system was also evaluated.

Results: We found that current remote monitoring technology could provide sufficient monitoring of vital signs, suggesting a potential to predict a worsening of heart failure in advance. Remote cardiac rehabilitation could be effectively and safely provided in patients with low to medium risk.

Conclusions: Telemedicine and remote cardiac rehabilitation possess a great potential in the cardiovascular disease practice post COVID-19 era; however, there are several unsolved issues regarding their implementation in the real-world clinical practice.

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KEYWORDS

telemedicine; remote cardiac rehabilitation; digital device; post COVID-19

Conflicts of Interest

None declared.

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